REMARKS

By this Amendment, Applicants amend claims 1, 6-10, 12, and 13. Claims 1-13 are currently pending.

In the Office Action identified above, the Examiner rejected claims 1, 6, 7, 9, 10, 12, and 13 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, rejected claims 1-3, 6, 7, and 10-13 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,714,517 to Fawaz et al. ("Fawaz") in view of U.S. Patent Application Publication No. 2002/0075875 to Dravida et al. ("Dravida"); and rejected claims 4, 5, 8, and 9 under 35 U.S.C. § 103(a) as unpatentable over Fawaz in view of Dravida and further in view of U.S. Patent No. 6,047,000 to Tsang et al. ("Tsang").[1] Applicants respectfully traverse the Examiner's rejections under both § 112 and § 103.

Regarding Claim Rejections under § 112

Applicants respectfully traverse the Examiner's rejection of claims 1, 6, 7, 9, 10, 12, and 13 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner alleged that "[t]he limitation 'arranged in hierarchical order' as described in the claims has no support in the disclosure." (Office Action at 3). Applicants respectfully disagree.

The phrase "hierarchical order" was included in the original claims and thus is part of the original disclosure. However, to expedite the prosecution of this application,

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[1] The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

Applicants have changed the "hierarchical order" in the claims to "priority order" to more clearly match terms described in the specification.

Regarding Claim Rejections under § 103

Applicants respectfully traverse the Examiner's rejection of claims 1-3, 6, 7, and 10-13 under 35 U.S.C. § 103(a) as unpatentable over Fawaz in view of Dravida. In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all the claim elements. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine reference teachings. Third, there must be a reasonable expectation of success. See M.P.E.P. § 2143.

Independent claim 1, as amended, recites a combination including, for example, "identifying a flow for said packet by at least a flow identifier and available bandwidth information; classifying said packet based on said identified flow; buffering said packet in one of a plurality of queues, arranged in a priority order, based on said classification of said packet and a priority of said packet assigned based on said priority order; and processing said packet in the one of the plurality of queues based on an accumulated bandwidth, size, and a residue bandwidth of said packet." Fawaz fails to teach or suggest at least the above claim elements as recited in amended claim 1.

Fawaz discloses a method and apparatus for interconnection of packet switches with guaranteed bandwidth. "Upon arrival at a QoS Node 102, 106, packets (e.g., ethernet frames) are placed into an input buffer 302. Subsequently, classifier 304 classifies each packet in accordance with an SLA. . . . once an SLA has been identified

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for the packet using the various classification information, the packet is placed into a FIFO-type buffer 306-312 that corresponds to the SLA, forming a queue of packets for the SLA." Fawaz, column 7, lines 29-54. However, Fawaz's mere teaching of classifying packets in a FIFO-type buffer 306 from an input buffer 302 does not constitute either "a flow for said packet by at least a flow identifier and available bandwidth information" or "processing said packet in the one of the plurality of queues based on an accumulated bandwidth, size, and a residue bandwidth of said packet," as recited in amended claim 1.

Dravida fails to cure Fawaz's deficiencies. Dravida discloses a broadband system with transmission scheduling and flow control. "Packet handling at a network element includes receiving packets on input links coupled to the network element, each packet having a quality of service (QoS) class indicating a service priority ranging from highest (1) to lowest (N). Received packets for each of the QoS classes from 1 to N-1 are stored in a common queue per QoS class while packets received for the lowest (N) QoS class are stored in link queues corresponding to the input links. The packets are transmitted from the common queues and the plural link queues to an output link according to a scheduling discipline." Dravida, abstract, emphasis added. However, Dravida fails to teach or suggest at least "a flow for said packet by at least a flow identifier and available bandwidth information" and "processing said packet in the one of the plurality of queues based on an accumulated bandwidth, size, and a residue bandwidth of said packet," as recited in amended claim 1.

Therefore, neither Fawaz nor Dravida, taken alone or in any reasonable combination, teaches or suggests all elements of Applicants' invention as recited in

amended claim 1. A *prima facie* case of obviousness has not been established. Accordingly, Applicants respectfully request withdrawal of the Section 103 rejection of claim 1. Because claims 2, 3, 6, and 7 depend from claim 1, Applicants also request withdrawal of the Section 103 rejection of claims 2, 3, 6, and 7 for at least as being dependent from an allowable base claim.

Further, amended independent claims 10, 12, and 13, while of different scope, recite similar language to that of claim 1. Claims 10, 12, and 13 are therefore also allowable for at least the same reasons stated above. Applicants respectfully request withdrawal of the Section 103 rejection of claims 10, 12, and 13. Because claim 11 depends from claim 10, Applicants also request withdrawal of the Section 103 rejection of claim 11 for at least as being dependent from an allowable base claim.

Applicants also respectfully traverse the Examiner's rejection of claims 4, 5, 8, and 9 under 35 U.S.C. § 103(a) as unpatentable over <u>Fawaz</u> in view of <u>Dravida</u> and further in view of <u>Tsang</u>. Claims 4, 5, 8, and 9 depend from claim 1, either directly or indirectly.

As stated above, <u>Fawaz</u> and <u>Dravida</u> fail to teach or suggest at least "identifying a flow for said packet by at least <u>a flow identifier and available bandwidth information</u>; classifying said packet based on said identified flow; buffering said packet in one of a plurality of queues, arranged in a priority order, based on said classification of said packet and a priority of said packet assigned based on said priority order; and <u>processing said packet in the one of the plurality of queues based on an accumulated bandwidth, size, and a residue bandwidth of said packet</u>," as recited in claim 1 and

required by claims 4, 5, 8, and 9 (emphasis added). Tsang fails to cure Fawaz and Dravida's deficiencies.

Tsang discloses a packet scheduling system "where the data packets are variable in size and wherein each input stream is allocated a share of the bandwidth of the output transmission link, the selecting means comprises means for determining the credit allocated to each input stream, the bandwidth allocated to each input stream, and the size of the head of line packets waiting to be transmitted in each input stream, and means for sorting the head-of-line packets in accordance with the difference between the size of the head of line packets and the allocated credit as a proportion of the allocated bandwidth, whereby the input stream having an allocated credit closest to the packet size as a proportion of allocated bandwidth is selected for transmission." Tsang, column 2, lines 27-39, emphasis added. However, Tsang's teaching of using closest allocated bandwidth does not constitute either "a flow for said packet by at least a flow identifier and available bandwidth information" or "processing said packet in the one of the plurality of queues based on an accumulated bandwidth, size, and a residue bandwidth of said packet," as recited in amended claim 1 and required by claims 4, 5, 8, and 9.

Therefore, none of Fawaz, Dravida, and Tsang, taken alone or in any reasonable combination, teaches or suggests all elements of Applicants' invention as recited in amended claim 1 and required by claims 4, 5, 8, and 9. Accordingly, claims 4, 5, 8, and 9 are allowable over Fawaz in view of Dravida and Tsang. Applicants respectfully request withdrawal of the Section 103 rejection of claims 4, 5, 8, and 9.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of all pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: December 29, 2005   By: _____
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